I CLAIM:

1. Apparatus for generating an electronic signal in response to selected wavelengths of light comprising:

a first photodiode for converting at least the selected wavelengths of light to a corresponding first electronic signal;

a second photodiode for converting at least additional wavelengths of light to a corresponding second electronic signal; and

a circuit for manipulating the first and second electronic signals to generate an output signal in response to the selected wavelengths of light.

2. Apparatus according to claim 1 wherein the first and second photodiodes are provided with a spectral sensitivity differential.

3. The apparatus of claim 1 wherein the first and second photodiodes have dissimilar optical thicknesses.

4. The apparatus of claim 1 wherein at least one photodiode is configured for converting visible light to an electronic signal.

5. The apparatus of claim 1 wherein one photodiode has an optical thickness of about 7.0 micrometers.

6. The apparatus of claim 1 wherein one photodiode has an optical thickness of about 3.5 micrometers.

7. The apparatus of claim 1 wherein the circuit for manipulating the first and second signals comprises an arithmetic logic circuit.

8. The apparatus of claim 1 wherein the circuit for manipulating the first and second signals comprises a scaling circuit.

9. Apparatus for generating an electronic signal in response to selected wavelengths of light comprising:

a first sensor for converting at least the selected wavelengths of light to a corresponding first electronic signal;

a second sensor for converting at least additional wavelengths of light to a corresponding second electronic signal;

wherein the first and second sensors are provided with a spectral sensitivity differential; and

a circuit for manipulating the first and second electronic signals to generate an output signal in response to the selected wavelengths of light.

10. The apparatus of claim 9 wherein the first and second sensors further comprise first and second photodiodes having dissimilar optical thicknesses.

11. The apparatus of claim 9 wherein one photodiode has an optical thickness of about 7.0 micrometers.

12. The apparatus of claim 9 wherein one photodiode has an optical thickness of about 3.5 micrometers.

13. The apparatus of claim 9 wherein the circuit for manipulating the first and second signals comprises an arithmetic logic circuit.

14. The apparatus of claim 9 wherein the circuit for manipulating the first and second signals comprises a scaling circuit.

15. The apparatus of claim 9 wherein at least one sensor comprises a circuit for converting visible light to an electronic signal.

16. A method of generating an electronic signal corresponding to selected wavelengths of light, the method comprising the steps of:

converting at least first and second wavelength ranges of light into first and second electronic signals wherein at least one of the wavelength ranges includes the selected wavelengths; and

manipulating the first and second electronic signals to generate an output signal corresponding to the selected wavelengths of light.

17. The method according to claim 16 wherein the converting step further comprises the steps of:

converting a first wavelength range of light, including at least the selected wavelengths of light, to a corresponding first electronic signal; and

converting a second wavelength range of light, including at least wavelengths distinct from the selected wavelengths of light, to a corresponding second electronic signal.

18. The method according to claim 16 further comprising the step of using a differential between the first electronic signal and the electronic second signal to generate the output signal.

19. The method according to claim 16 further comprising the step of selecting first and second wavelength ranges which partially overlap.

20. The method according to claim 16 wherein the selected wavelengths comprise visible light.